

Abstract of the Disclosure

1 A multi-layer papermaker's forming fabric has stitching yarns integrated into
15 the papermaking surface. Each of a plurality of repeating units of the fabric
comprises: a set of top machine direction yarns; a set of top cross-machine direction
yarns interwoven with the top machine direction yarns; a set of bottom machine
direction yarns; a set of bottom cross-machine direction yarns interwoven with the
bottom machine direction yarns; and pairs of first and second stitching yarns. The
20 stitching yarn pairs are positioned between pairs of top cross-machine direction yarns.
The stitching yarns of each pair are interwoven with the top and bottom machine
direction yarns such that, as a fiber support portion of the first stitching yarn is
interweaving with the top machine direction yarns, a binding portion of the second
stitching yarn is positioned below the top machine direction yarns, and such that as a
25 fiber support portion of the second stitching yarn is interweaving with the top
machine direction yarns, a binding portion of the first stitching yarn is positioned
below the top machine direction yarns. The first and second stitching yarns cross
each other as they pass below a transitional top machine direction yarn. Also, each of
the binding portions of the first and second stitching yarns passes below at least one
30 of the bottom machine direction yarns. In this configuration, the stitching yarns are
completely integrated into the top, or papermaking, surface of the fabric, and
therefore do not adversely impact the papermaking qualities of the fabric.

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